

**FAA Forecast Conference
Remarks of
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Good morning. It is a pleasure to discuss the state of the general aviation manufacturing industry today. It is good very good news. GAMA recently announced that 1999 was the fifth year in a row in which general aviation billings and shipments increased.

To put those billings statistics into historical context, GAMA's tracking of industry billings and shipments dates back to 1946. In the entire 54-year period over which we have tracked these statistics, the industry has never before enjoyed five straight years of growth in both billings and shipments.

TOTAL BILLINGS

In 1999, the industry once again set a new all-time record for billings.

Total billings for the year reached \$7.9 billion. That is up 35.1 percent from 1998.

To fully appreciate that number, just think back to three years ago when GAMA announced with great fanfare that, for the first time in the entire history of general aviation, our industry had annual billings slightly in excess of \$3 billion.

Now, here we are three years later, and our billings are up to \$7.9 billion.

TOTAL SHIPMENTS

Once again, we have recorded a double-digit increase in shipments of general aviation aircraft. In 1999, we shipped 2,525 total units. That is up 13.7 percent from 1998.

PISTON-ENGINE AIRCRAFT

Breaking down the shipment numbers, we see that a total of 1,747 piston-engine aircraft were shipped last year. That is a 13.9 percent increase over 1998. Single-engine piston shipments reached 1,635 units in 1999, up 13.9 percent from 1998. Multi-engine piston shipments rose 14.3 percent, to 112 units.

TURBINE-ENGINE AIRCRAFT

Turbine-engine shipments also grew in 1999. Total turbine shipments were up 13.4 percent, to 778 units. Turboprop units were actually down 2.6 percent, but turbofan shipments increased 23.9 percent, to 514 units.

EXPORTS

The number of aircraft that were shipped to overseas destinations increased by 5 percent in 1999, to 562 units. The dollar value of our exports reached \$2.5 billion, that is up 52.7 percent from 1998.

Overall, exports accounted for 31.6 percent of total industry billings in 1999, and 22.3 percent of total industry shipments.

Still, despite all of the instability in the world economy, we continue to see strong demand for general aviation aircraft. This clearly demonstrates that there is a growing worldwide acceptance of general aviation. There is still a huge amount of untapped potential in the international arena, but these export numbers show we are making progress.

NEW DELIVERIES

Helping to drive general aviation's impressive billing, shipment and export numbers are several new aircraft models. 1999 was the first full year of production for Cessna's Citation Excel and 206 Stationair, the Learjet Model 45 and the Boeing Business Jet.

1999 was also the year in which deliveries began for the Cirrus SR20 and the Mooney Ovation II.

Given the positive impact new aircraft models have traditionally had on billings, shipments and exports it is easy to understand why GAMA is optimistic about what 2000 holds in store.

This year Raytheon will begin delivering its Premier I, an entry-level business jet that features an all composite fuselage. The New Piper Aircraft, Inc. will begin delivering its new Malibu Meridian, an exciting new single-engine turboprop. Already this year, Lancair has delivered its first factory-made model, the Columbia 300. And Cessna will start making deliveries on three new additions to its highly successful Citation line: the CJ1, the CJ2 and the Encore.

PILOT POPULATION

Pilots are the lifeblood of general aviation, so for our community to grow we need a healthy and expanding base of pilots. 1999 was the third straight year in which student starts increased. Since the BE A PILOT program was launched in 1996, we have stopped what had been a precipitous decline in the number of people learning how to fly, and we have increased student starts by 14 percent. Fortunately for all of us, BE A PILOT program is making a real difference.

CORPORATE FLIGHT DEPARTMENTS

In addition to having a growing pilot population, it is important for general aviation to have a growing number of businesses establishing flight departments and utilizing general aviation aircraft as a transportation tool.

Last year, the number of corporate flight departments in the United States grew by 6.6 percent, from 8,236 flight departments in 1998 to 8,778 in 1999.

FRACTIONAL OWNERSHIP PROGRAMS

At the same time the number of corporate flight departments was increasing, fractional ownership programs continued their rapid expansion.

The number of individuals and companies in the United States that own a fractional share of an aircraft increased 50 percent last year.

And the number of aircraft in fractional programs grew by 46 percent, from 253 aircraft in 1998 to 370 in 1999.

On the subject of fractional ownership, most of you know that questions were raised a couple of years ago as to the appropriate operating regulations for aircraft in fractional programs. Since 1985, fractional operations have been regulated under FAR Part 91, which governs business aircraft operations.

Just two weeks ago, the FAA's Fractional Ownership Aviation Rulemaking Committee made its final recommendations. In very short time, the FOARC produced an excellent proposal that was unanimously supported by manufacturers and operators alike. FAA is now assessing these recommendations, and we have every reason to expect that the FAA will propose a fractional ownership rule very soon. There is no doubt that fractional ownership programs will continue to increase the demand for business aviation, and the demand for airplanes.

CHARTER ACTIVITY

Getting back to the statistics, while corporate flight departments and fractional programs have been growing, so too have charter operations. According to the National Air Transportation Association, 1999 was the best year ever for charter operators--their activity was up over 20 percent.

I think the across-the-board growth in corporate flight departments, fractional programs, and charter activity indicates that more businesses than ever are utilizing general aviation, and they are doing so in a manner that is most appropriate for fulfilling their transportation needs.

EMPLOYMENT

Employment at general aviation manufacturing companies also rose again last year. It was up by 7.6 percent at GAMA member companies.

NEW PRODUCTS

Over the past five years much has been said and written about the wonderful innovations in the business jet segment of the general aviation industry—and that is entirely appropriate. The new business jets are remarkable. I have already mentioned some of the great new models by companies like Boeing, Cessna, Learjet and Raytheon, and certainly no list of innovative new business jets would be complete without the ultra-long range GV from Gulfstream.

These business jets incorporate the latest technologies, including new engine models like the FJ-44 from Williams International, the AS-900 from Honeywell, the AE-3007 from Rolls-Royce Allison, and the PW-306 from Pratt & Whitney. The business jets are also equipped with top of the line avionics suites like Rockwell Collins' Pro Line 21, Honeywell's Primus Epic and Universal's "Super FMS".

Today, I would also like to focus on the revolutionary technology entering the piston-powered part of our industry. Not too many years ago, some believed that this segment would never again see revolutionary new products. They were wrong.

First, let me talk about some of the new engine technologies. As you know, historically it is new engines that have brought about the greatest changes in aircraft design and performance, and, at the entry level of general aviation, some very exciting new engines are on the verge of reaching the market.

The FJX-2 turboprop engine, developed by Williams International, is planned to weigh only one hundred pounds, but it will produce 700 pounds of thrust. With an extremely economical price, this could be a feasible choice for even the smallest airplane. The Williams engine is expected to fly this year at Oshkosh.

Teledyne Continental Motors and Textron Lycoming are developing a new generation of internal combustion engines based on diesel technology, with distinct advantages over piston-powered engine designs. First, the number of moving parts is greatly reduced, simplifying both engine production and maintenance. This also reduces weight and engine noise while improving reliability. Equally as important, these engines will be able to use jet fuel. The result will be an engine with better performance and high reliability, but much lower cost.

In addition to new engines, these manufacturers are also developing new electronic engine controls that will not only add to the performance of new engine designs, but could greatly improve performance of the existing piston-engine fleet.

Teledyne Continental Motors is developing a new Full Authority Digital Engine Control system, or FADEC, which incorporates an innovative microprocessor architecture designed to provide a high degree of redundancy.

Lycoming has joined with Unison Industries in the development of the Electronic Propulsion Integrated Control system, or EPiC program. EPiC is a completely integrated digital propulsion system for new certified piston-powered aircraft that will provide exact engine propulsion management.

Likely to complement the new engines are new propeller designs by companies like Hartzell. These new propellers will not only improve efficiency, but they will also make smaller airplanes even quieter than they are today.

For several years now we have seen tremendous advances in the avionics available at the entry level of general aviation. As a result, even the smallest GA aircraft can now have navigation and communication capabilities that are equivalent to commercial airliners.

And the best news is that there is still more to come from the avionics manufacturers. A new generation of GPS/WAAS receivers from companies like GARMIN, Honeywell and UPS Aviation Technologies will be even easier to operate than the current generation of GPS

receivers. They will offer fast and easy access to basic navigation functions, and there will be standard function labels and abbreviations regardless of the equipment manufacturer.

As our industry continues to benefit from laptop computer-display research, we can expect cockpit displays in smaller aircraft to become even more sophisticated and less expensive than they are today. As a result, advanced multi-function displays (MFD) similar to the ones currently manufactured by Avidyne, Rockwell Collins, Honeywell and others will be ubiquitous.

When coupled with a GPS/WAAS receiver, these new multi-function displays will not only depict a moving map, but also nearby terrain, engine operating parameters and other important information such as actual fuel burned versus the amount planned. The basic attitude and heading displays of the aircraft will be depicted in such a way that IFR flight can be easily accomplished.

BFGoodrich and Honeywell have both announced new low-cost Terrain Awareness and Warning Systems, or TAWS, for small GA aircraft.

Companies like GARMIN and Honeywell are working on products that will allow near real-time weather and weather forecasts to be displayed in the cockpit via ground-to-air or satellite datalink. And the FAA is field testing in the Ohio Valley and Alaska ADS-B products by UPS Aviation Technologies that will allow traffic information to be automatically displayed via air-to-air datalink from nearby aircraft.

Looking at all of these exciting new technologies, it is easy to get enthusiastic about the future of general aviation, and I haven't even mentioned some of our great new training products, autopilots, or some of the advances being made by some of GAMA's component manufacturers. Still, it would be naïve for anyone to believe that great new products alone will ensure a bright future for our industry.

SAFETY

I have saved the best industry statistic for last. Once again, we are pleased the industry set a new all-time record for safety as the general aviation accident rate reached the lowest level since we began keeping records in 1938.

At the present, the entire GA community is working with the FAA on the Safer Skies Initiative—an effort designed to significantly reduce GA accidents despite the projected growth in flight activity.

The dedication of industry time and resources to this important initiative has been enormous, and I think it really speaks volumes about the community's ongoing commitment to safety.

Closing

As you have seen, 1999 was a very good year for the general aviation industry. The industry is already reaping the benefits of our long-term investments to develop new airframes, engines, avionics and other components. Our commitment to new product development is unwavering, and there is even more to come.

Thank You.